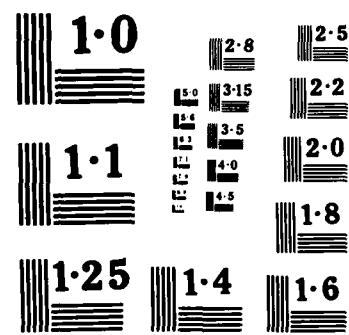


AD-A144 836 19320A MLRS MISSILE NUMBER Y6165 Y6131 Y6132 Y6133 1/1  
ROUND NUMBER V593/AT2- (U) ARMY ELECTRONICS RESEARCH  
AND DEVELOPMENT COMMAND WSMR NM ATM. D C KELLER

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DR 1345

Jun 84

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(12)

METEOROLOGICAL DATA REPORT

Missile Number V6165, V6131, V6132, V6133  
Round Number V593/AT2-55, V594/AT2-56, V595/AT2-57, VV596/AT2-58  
12 June 1984

by

DONALD C. KELLER  
Program Support Coordinator  
Phone Number (505) 679-9568  
AVN Number 349-9568

ATMOSPHERIC SCIENCES LABORATORY  
WHITE SANDS MISSILE RANGE, NEW MEXICO

.....  
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UNITED STATES ARMY ELECTRONICS COMMAND

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Dist	Avail and/or Special
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## INTRODUCTION

19320A MLRS, Missile Numbers V6165, V6131, V6132, and V6133, Round Numbers V593/AT2-57 Thru V594/AT2-58, were launched from LC-33, White Sands Missile Range (WSMR). New Mexico at 1000:48, 1010:31, 1010:35 and 1010:40 MDT, 12 Jun 84. The scheduled launch times were 0956 MDT, 1006:00, 1006:4.5 and 1006:09 MDT.

## DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

### 1. Observations

#### a. Surface

(1) Standard surface observations to include pressure, temperature ( $^{\circ}\text{C}$ ), relative humidity, dew point ( $^{\circ}\text{C}$ ), density ( $\text{gm}/\text{m}^3$ ), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

#### b. Upper Air

(1) Low level wind data were obtained from pilot-balloon observations at:

### SITE AND ALTITUDE

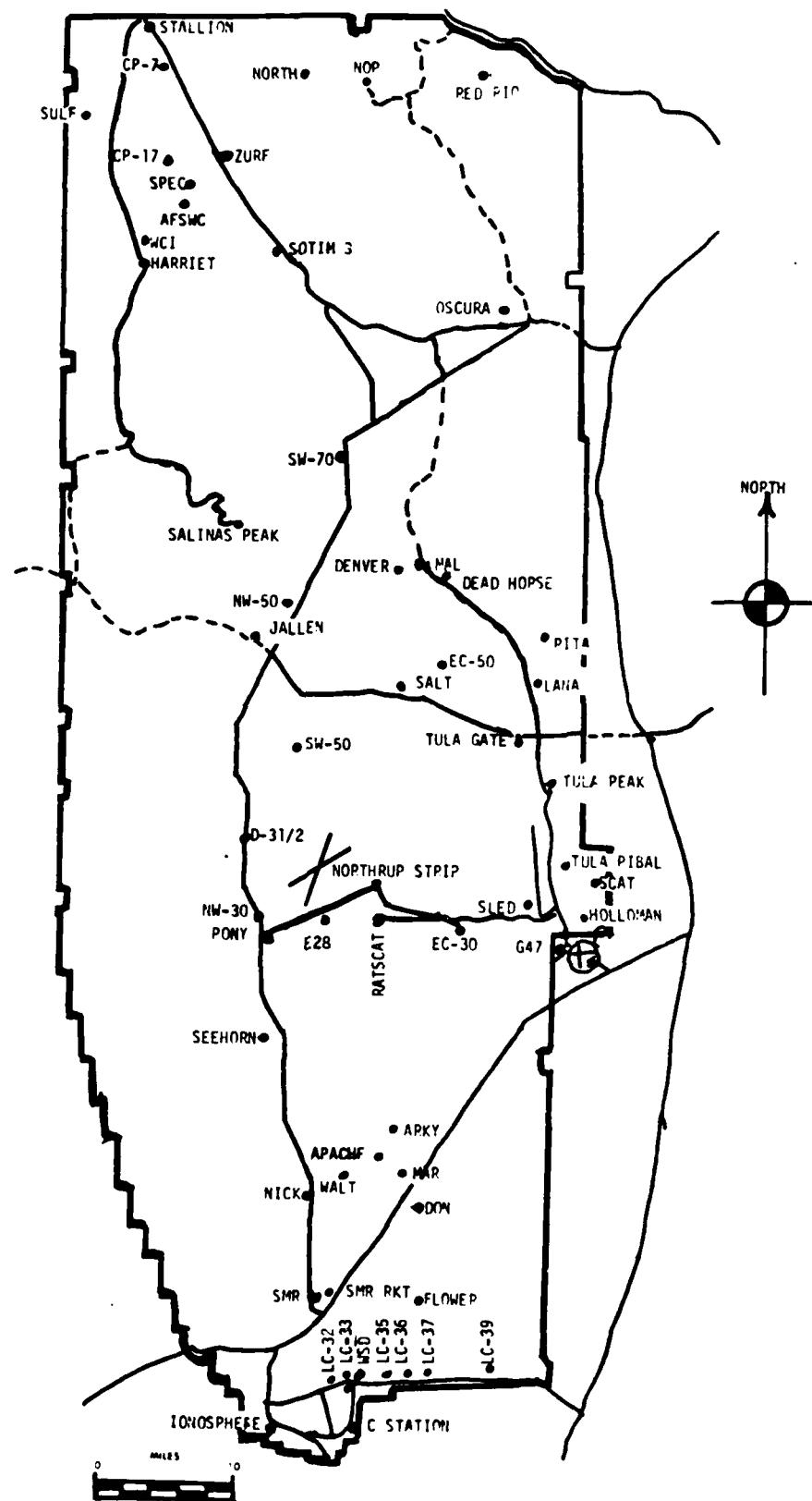
SMR	2 km
LC-33	2 km

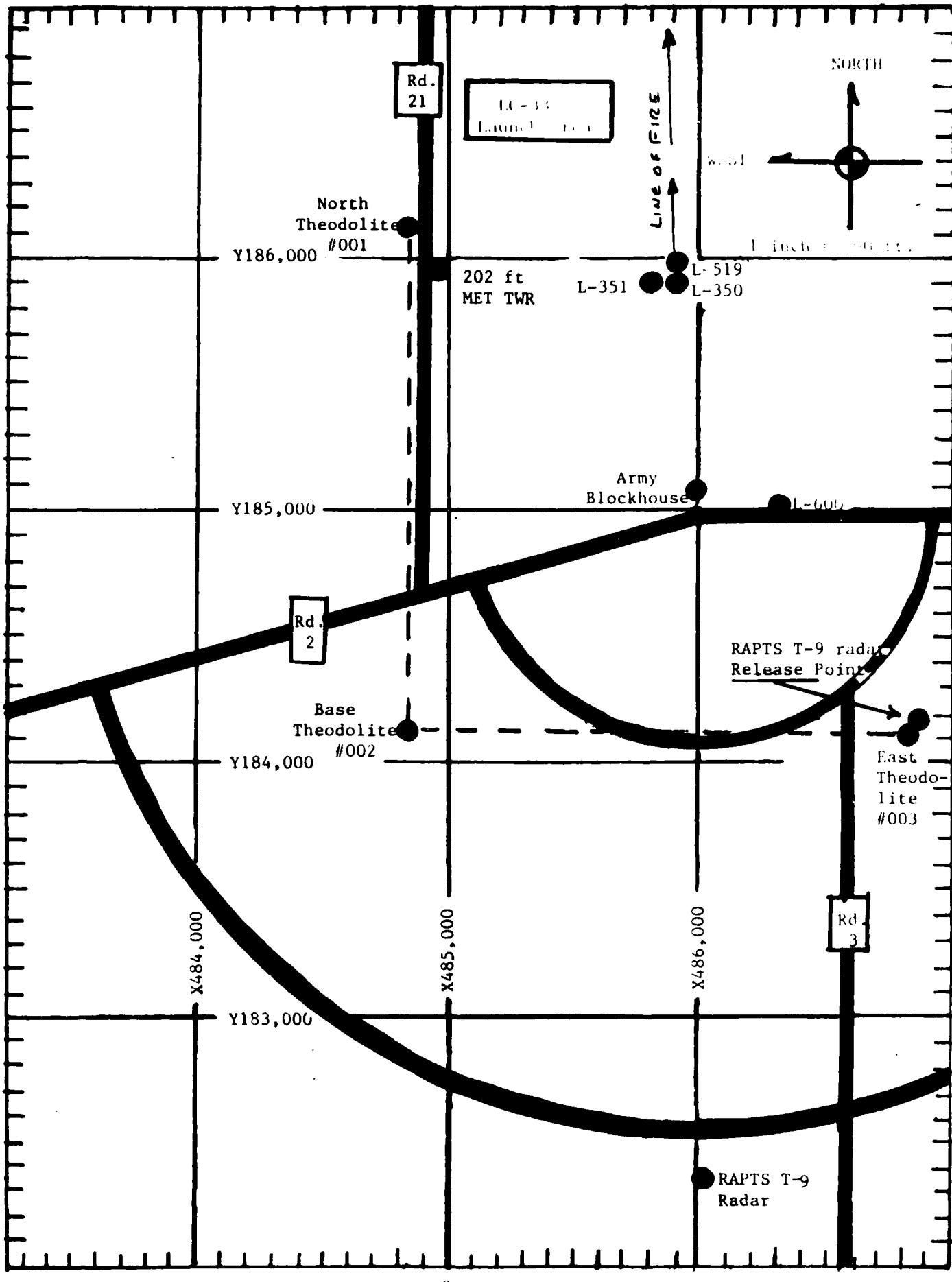
(2) Air structure data (rawinsonde) were collected at the following Met Sites.

### SITE AND TIME

WSD	0656 MDT
SMR	0656 MDT
WSD	0826 MDT
SMR	0826 MDT
WSD	0911 MDT
SMR	0911 MDT
WSD	1000 MDT
SMR	1002 MDT

## WSMR METEOROLOGICAL SITES





## PROJECT SURFACE OBSERVATIONS

TABLE 1

DATE 12 Jun 84

STATION: I.C.-33

Y = 484,982.64 Y = 185,957.73 H = 3995.00

TYPE MDT	PRESSURE in. Hg	TEMPERATURE OF OCEAN	DEW POINT OF OCEAN	RELATIVITY %	WIND SPEED kts	CHARACTER kts	VISIBILITY
1001	877.1	31.8	8.8	24	320	10	40
1011	877.0	31.4	8.2	24	220	10	40

OBSTRUCTION TO VISIBILITY	CLOUDS			REMARKS		
	1st LAYER	2nd LAYER	3rd LAYER	AIR TYPE	HGT	HGT
	2	c1	25000			
	2	c1	25000			

## PSYCHOPOTETIC COMPUTATION

TIME: MDT	1001	1011	
DRY BULB TEMP.	31.8	31.4	
WET BULB TEMP.	17.2	16.8	
WET BULB DEPR.	14.6	14.6	
DEW POINT	8.8	8.2	
RELATIVE HUMID.	24	24	

LC-33 METEOROLOGICAL TOWER  
ANEMOMETER MEASURED WIND DATA

WSTM COORDINATES X=484,982.64 Y=185,957.73 H=3983.00 (BASE)

TABLE NO. 2

DATE 12 Jun 84 1001 M D T  
DAY MONTH YEAR TIME

LEVEL #1			12 FT AGL			LEVEL #2			62 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	MISG	MISG									
T-20	MISG	MISG									
T-10	306	03	T-10	306	14	T-10	306	14	T-10	306	14
T- 0 (1st T)	306	01	T- 0 (1st T)	314	12	T- 0 (1st T)	314	12	T- 0 (1st T)	314	12
T+10	316	08	T+10	309	12	T+10	309	12	T+10	309	12
T+20	297	10	T+20	303	12	T+20	303	12	T+20	303	12
T+30	297	08	T+30	308	12	T+30	308	12	T+30	308	12
T+40			T+40			T+40			T+40		
T+50			T+50			T+50			T+50		
T+60			T+60			T+60			T+60		
LEVEL #3			102 FT AGL			LEVEL #4			202 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	MISG	MISG									
T-20	MISG	MISG									
T-10	305	14	T-10	296	12	T-10	296	12	T-10	296	12
T- 0 (1st T)	303	14	T- 0 (1st T)	300	12	T- 0 (1st T)	300	12	T- 0 (1st T)	300	12
T+10	303	12	T+10	291	11	T+10	291	11	T+10	291	11
T+20	300	13	T+20	303	14	T+20	303	14	T+20	303	14
T+30	308	12	T+30	316	11	T+30	316	11	T+30	316	11
T+40			T+40			T+40			T+40		
T+50			T+50			T+50			T+50		
T+60			T+60			T+60			T+60		

**LC-33 METEOROLOGICAL TOWER  
ANEMOMETER MEASURED WIND DATA**

WSTM COORDINATES X=484,982.64 Y=185,957.73 H=3983.00 (BASE)

TABLE NO. 3

DATE 12 Jun 84 1011 M D T  
DAY MONTH YEAR TIME

LEVEL #1			LEVEL #2		
12 FT AGL			62 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	333	12	T-30	330	12
T-20	335	08	T-20	332	12
T-10	339	10	T-10	333	10
T- 0 (1st T)	334	07	T- 0 (1st T)	339	10
T+10	342	08	T+10	340	10
T+20	343	06	T+20	336	10
T+30	352	05	T+30	329	08
T+40			T+40		
T+50			T+50		
T+60			T+60		
LEVEL #3			LEVEL #4		
102 FT AGL			202 FT AGL		
T-TIME (SEC)	DIR (DEG)	SPEED (KTS)	T-TIME (SEC)	DIR (DEG)	SPEED (KTS)
T-30	327	12	T-30	319	12
T-20	328	12	T-20	323	11
T-10	330	10	T-10	324	10
T- 0 (1st T)	334	10	T- 0 (1st T)	321	10
T+10	326	10	T+10	321	09
T+20	332	08	T+20	319	11
T+30	319	10	T+30	326	14
T+40			T+40		
T+50			T+50		
T+60			T+60		

TABLE 4

## PILOT-BALLOON MEASURED WIND DATA

DATE 12 June 1984

SITE: LC-33  
 TIME: 0941 MDT  
 WSTM COORDINATES:  
 X= 486,037.24  
 Y= 182,350.16  
 H= 3,977.30

SITE: SMR  
 TIME 0941 MDT  
 WSTM COORDINATES:  
 X= 472,444.85  
 Y= 213,781.95  
 H= 4,000.99

LAYER	MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS	LAYER	MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
	SURFACE	300	12		SURFACE	215	05
	150	290	13		150	274	04
	210	279	14		210	280	16
	270	282	13		270	265	16
	330	279	14		330	303	13
	390	289	15		390	297	15
	500	293	12		500	305	11
	650	284	11		650	292	04
	800	290	10		800	320	04
	950	282	13		950	346	01
	1150	313	05		1150	016	02
	1350	332	07		1350	250	01
	1550	195	02		1550	036	04
	1750	169	06		1750	254	02
	2000	MISG	MISG		2000	MISG	MISG

Data obtained for RAPTS T-9 radar tracked pilot-balloon observations.

TABLE 5

## T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 12 June 1984

SITE: LC-33

TIME: 1001 MDT

WSTM COORDINATES:

X= 486,037.24

Y= 182,350.16

H= 3,977.30

SITE: SMR

TIME 1001 MDT

WSTM COORDINATES:

X= 472,444.85

Y= 213,781.95

H= 4,000.99

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS	LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	320	10	SURFACE	260	02
150	303	11	150	313	02
210	286	12	210	315	06
270	285	15	270	310	04
330	286	13	330	260	06
390	297	11	390	291	06
500	297	10	500	300	04
650	315	08	650	313	05
800	289	11	800	319	03
950	306	09	950	267	04
1150	317	09	1150	270	03
1350	337	06	1350	268	04
1550	332	04	1550	278	04
1750	190	02	1750	285	03
2000	239	07	2000	245	05

Data obtained from RAPTS-T-9 radar tracked pilot-balloon observations.

TABLE 6

## T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 12 June 1984

SITE: LC-33

TIME: 1011 MDT

WSTM COORDINATES:

X= 486,037.24

Y= 182,350.16

H= 3,977.30

SITE: SMR

TIME 1011 MDT

WSTM COORDINATES:

X= 472,444.85

Y= 213,781.95

H= 4,000.99

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	320	10
150	307	10
210	294	11
270	288	11
330	291	10
390	287	12
500	284	09
650	289	07
800	286	06
950	307	11
1150	338	07
1350	325	07
1550	338	09
1750	276	03
2000	219	08

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	240	03
150	265	03
210	301	06
270	281	11
330	274	12
390	274	06
500	281	03
650	279	07
800	304	06
950	245	05
1150	257	04
1350	263	03
1550	206	01
1750	255	03
2000	294	02

Data obtained from RAPTS T-9 radar tracked pilot-balloon observations.

TABLE 7

## AIMING AND T-TIME COMPUTER MET MESSAGE DATA

12 June 1984

WSD 0656 MDT	SMR 0656 MDT	WSD 0826 MDT	SMR 0826 MDT
METCM1324064	METCM1325064	METCM1324064	METCM1325064
121290122876	121290122876	121440122876	121440122876
00373006 29750876	00356004 29630876	00427008 30180876	00427014 30280876
01355019 29920866	01369011 29790866	01399013 30090866	01468016 30130866
02359027 29830842	02358014 29750842	02553009 29900842	02472014 29870842
03379018 29490804	03442014 29480804	03494010 29660804	03453014 29570804
04464009 29080759	04450016 29110758	04404011 29320759	04393012 29280759
05368008 28770715	05338009 28780715	05375014 28930716	05350013 28930716
06351011 28480674	06369015 28460674	06363013 28520675	06352013 28500674
WSD 0911 MDT	SMR 0911 MDT	WSD 1000 MDT	SMR 1002 MDT
METCM1324064	METCM1325064	METCM1324064	METCM1325064
121520122876	121520122876	121600122877	121600122876
00533006 30430876	00427008 30430876	00587010 30500877	00462002 30610876
01519015 30250867	01456006 30340866	01522017 30390867	01596002 30390866
02520014 29970842	02518007 30070847	02583008 30150843	02508006 30070842
03520009 29580805	03460010 29710805	03613006 29750805	03499004 29700805
04521002 29150759	04397005 29270759	04631008 29260760	04472004 29200759
05380013 28890716	05349008 28830716	05414005 28830717	05425005 28750716
06378013 28490675	06377016 28440675	06408015 28470675	06388014 28410675

STATION ALTITUDE 3330 FEET MSL  
12 JUNE 6, 0659 MDT  
ASCENSION NO. 326

SIGNIFICANT LEVEL DATA

GEODETIC COORDINATES  
32°40'04.3 LAT DEG  
106°37'03.3 LON DEG

PRESSURE GEOMETRIC  
ALTITUDE  
MILLIBARS MSL FEET

TEMPERATURE  
AIR DEPOINT  
DEGREES CENTIGRADE

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
375.1	3939.0	22.7	65.0
567.9	4265.7	25.3	39.0
650.3	4665.3	26.3	39.0
762.5	7948.3	15.3	33.0
702.5	9353.4	15.6	56.0
700.2	10375.5	12.6	24.0
674.2	11329.3	11.3	74.0
641.3	12734.3	7.3	61.0
599.6	16536.6	2.2	56.0

TABLE 8

STATION ALTITUDE 1700. FEET MSL  
12 JUNE 34  
ASCENSION NO. 32. 0656 MDT

UPPER AIR DATA  
1640020324  
WHITE SANDS

GEODETIC COORDINATES  
32.4045 LAT DEG  
126.37035 LDN DEG

TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE WILLIAMS	TEMPERATURE AIR DEGREES	DESPRECINT CENTIGRADE	REL. HUM. PERCENT	REL. HUM. MM/CUBIC METER	SPEED OF WIND KNOTS	DIRECTION DEGREES (TN)	WIND DATA KNOTS	INDEX OF REFRACTION
3989.0	375.3	22.7	1.5	46.0	1226.2	671.3	210.0	5.0	1.000264
4060.0	375.0	22.3	10.5	45.7	1225.5	572.5	210.5	5.1	1.000283
4500.0	365.9	26.7	9.8	59.0	1021.4	574.2	210.5	8.8	1.000275
5000.0	346.0	26.0	9.1	58.7	996.3	573.3	210.4	11.5	1.000273
5500.0	331.2	22.0	7.3	57.9	973.3	671.3	211.7	15.2	1.000262
6000.0	316.7	21.6	6.2	56.8	961.1	570.3	211.1	17.0	1.000256
6500.0	302.4	20.4	6.3	55.9	968.5	558.3	213.6	17.7	1.000249
7000.0	285.4	19.2	5.3	54.8	936.1	557.3	224.5	14.1	1.000243
7500.0	774.7	18.0	1.9	53.9	923.8	665.3	241.3	11.4	1.000247
8000.0	761.1	16.5	4.4	52.8	911.5	556.4	246.2	9.6	1.000231
8500.0	747.5	15.0	-1.5	50.5	928.1	553.4	248.2	7.9	1.000225
9000.0	734.2	15.2	-3.1	28.3	834.2	552.3	234.1	7.0	1.000219
9500.0	721.2	14.3	-6.9	26.0	871.2	621.3	215.1	5.8	1.000214
10000.0	708.3	13.5	-6.7	24.0	859.2	550.2	205.1	7.7	1.000203
10500.0	695.6	12.6	-6.1	27.0	846.3	559.3	198.2	9.3	1.000207
11000.0	683.0	11.7	-3.3	35.4	831.0	558.4	129.4	12.1	1.000208
11500.0	670.7	10.8	-2.0	40.5	820.4	557.5	199.4	11.2	1.000203
12000.0	658.5	9.4	-3.6	39.6	800.3	555.7	222.7	11.9	1.000203
12500.0	646.5	8.0	-5.3	38.5	799.3	556.3	205.3	12.6	1.000208
13000.0	634.7	6.5	-5.8	40.7	788.7	652.3	100.5	12.1	1.000195
13500.0	623.0	5.1	-5.6	65.7	778.7	650.7	767.5	10.3	1.000193
14000.0	611.5	3.7	-5.5	50.7	778.7	649.3	557.1	10.0	1.000199
14500.0	600.2	2.3	-5.6	55.7	757.1	567.4	1000199		

STATION ALTITUDE 3203.0 FEET  
1<sup>o</sup> JUNE 3<sup>rd</sup> 1952  
ASCENSION NO. 326 0656 MDT

MANDATORY LEVELS

1440023525

WHITE SANDS

GEODETIC COORDINATES  
32°47'34" LAT DEG  
106°37'03" LONG DEG

TABLE 10

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL.HUM. PERCENT	WIND DATA	
		DEGREES	AIR DEPOINT CENTIGRADE		DIRECTION (W) DEGREES (W)	SPEED KNOTS
950.0	4962.	26.5	9.5	39.	210.8	10.8
900.0	6591.	25.2	6.5	35.	215.3	17.0
750.0	8601.	15.1	-1.0	51.	247.6	8.5
700.0	10115.	12.5	-7.4	24.	200.4	8.4
650.0	12141.	9.4	-4.8	39.	236.6	12.4
600.0	14691.	2.3	-5.6	55.		

TABLE 11

PRESSURE AT 1000 FEET MILLIBARS MSL	TEMPERATURE DEGREES CENTIGRADE	AIR DENSITY DEGREES C	SIGNIFICANT LEVEL DATA	
			STATOLOGY ALTITUDE IN FEET	ACCELERATION IN FEET/SEC. SEC.
1013.29	15.0	1.2000	0	32.1700
1013.20	15.5	1.1999	3300	32.1699
1013.11	16.0	1.1998	6600	32.1698
1013.02	16.5	1.1997	9900	32.1697
1012.93	17.0	1.1996	13200	32.1696
1012.84	17.5	1.1995	16500	32.1695
1012.75	18.0	1.1994	19800	32.1694
1012.66	18.5	1.1993	23100	32.1693
1012.57	19.0	1.1992	26400	32.1692
1012.48	19.5	1.1991	29700	32.1691
1012.39	20.0	1.1990	33000	32.1690
1012.30	20.5	1.1989	36300	32.1689
1012.21	21.0	1.1988	39600	32.1688
1012.12	21.5	1.1987	42900	32.1687
1012.03	22.0	1.1986	46200	32.1686
1011.94	22.5	1.1985	49500	32.1685
1011.85	23.0	1.1984	52800	32.1684
1011.76	23.5	1.1983	56100	32.1683
1011.67	24.0	1.1982	59400	32.1682
1011.58	24.5	1.1981	62700	32.1681
1011.49	25.0	1.1980	66000	32.1680
1011.40	25.5	1.1979	69300	32.1679
1011.31	26.0	1.1978	72600	32.1678
1011.22	26.5	1.1977	75900	32.1677
1011.13	27.0	1.1976	79200	32.1676
1011.04	27.5	1.1975	82500	32.1675
1010.95	28.0	1.1974	85800	32.1674
1010.86	28.5	1.1973	89100	32.1673
1010.77	29.0	1.1972	92400	32.1672
1010.68	29.5	1.1971	95700	32.1671
1010.59	30.0	1.1970	99000	32.1670
1010.50	30.5	1.1969	102300	32.1669
1010.41	31.0	1.1968	105600	32.1668
1010.32	31.5	1.1967	108900	32.1667
1010.23	32.0	1.1966	112200	32.1666
1010.14	32.5	1.1965	115500	32.1665
1010.05	33.0	1.1964	118800	32.1664
1009.96	33.5	1.1963	122100	32.1663
1009.87	34.0	1.1962	125400	32.1662
1009.78	34.5	1.1961	128700	32.1661
1009.69	35.0	1.1960	132000	32.1660

32.1660 LAT DEG  
125.42337 LONG DEG  
32.1660 LAT DEG  
125.42337 LONG DEG  
32.1660 LAT DEG  
125.42337 LONG DEG

STATION ALTITUDE 3997.0' FREE MSL  
 12 JUNE 34 ASCENSION NO. 56 0652 MDT

UPPER AIR DATA  
 144600Z55555  
 S P R

GEOMETRIC COORDINATES  
 32°45'34" LAT DEG  
 105°42'07" LONG DEG

TABLE 12

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY SW/CUBIC METER	SPEED OF WIND KNOTS	DIRECTION DEGREES (T)	DEGREES (R)	NOTES	REFRACTION INDEX
3997.0	376.2	22.4	100	1.027.0	571.5	210.7	6.1	1.000265	
4000.0	375.1	22.4	103	1.026.9	671.5	210.1	6.1	1.000255	
4500.0	361.0	23.5	96	1.005.3	572.8	228.1	5.8	1.000275	
5000.0	365.1	23.2	93	1.000.6	939.7	572.5	237.5	1.000263	
5500.0	351.4	22.5	52	820.4	975.4	671.2	245.0	1.000255	
6000.0	315.9	21.7	19	270.3	952.1	572.0	245.5	1.000245	
6500.0	302.5	20.6	11	27.1	948.7	553.8	245.8	1.000244	
7000.0	298.4	19.5	2	27.3	935.5	557.5	242.7	15.2	1.000275
7500.0	277.6	18.5	5	27.6	922.5	556.2	242.3	14.9	1.000272
8000.0	262.3	17.4	15	27.5	907.7	555.7	252.7	14.7	1.000277
8500.0	247.3	16.3	24	27.7	937.1	553.7	240.6	12.3	1.000223
9000.0	234.1	15.2	32	27.9	836.5	552.4	225.2	10.3	1.000219
9500.0	221.2	14.2	61	27.9	872.6	551.1	211.4	7.9	1.000215
10000.0	208.3	13.4	25	28.7	858.9	552.4	205.5	12.8	1.000215
10500.0	195.5	13.0	23	35.2	844.5	559.9	197.1	11.9	1.000213
11000.0	183.1	11.9	37	33.6	832.3	553.5	225.3	2.7	1.000207
11500.0	170.7	10.4	68	35.3	821.3	555.8	158.3	2.3	1.000203
12000.0	158.5	9.3	53	34.6	811.2	555.1	1.000203		
12500.0	145.5	7.5	69	35.3	800.7	553.4	1.000203		

STATION ALTITUDE 3337.0 FEET MSL  
12 JUNE 34, 0652 MDT  
ASCESSION NO. 50

ANALOGY LEVELS

GEODETIC COORDINATES  
184.000000000  
50.000000000  
106.423000000  
LAT DEG  
LON DEG

TABLE 13

PRESSURE GEOPOTENTIAL WILLIAMS FEET	DEGREES OF LATITUDE	AIR DEPOINT PERCENT	RELATIV. PERCENT	DIRECTION AND SPEED OF WIND	
				DEGREES	DEGREES (TAN)
950.0	4356.	23.6	6.0	235.6	7.5
920.0	5521.	25.6	0.9	242.3	1.7
750.0	8604.	15.5	-2.2	242.7	12.7
720.0	10317.	15.1	-0.9	193.1	11.5
650.0	12344.	3.0	-6.6	35.	

STATION ALTITUDE 3332.0 FEET 1951  
1, JUNE 9, 1951 0826 MDT  
ASCENSION NO. 327

SIGNIFICANT LEVEL DATA

1440022327  
WHITE SANDS  
32.43345 LAT. DEG  
106.17033 LONG. DEG

TABLE 14

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. DEGREES
375.0	5939.0	26.9	11.0
65.7	4303.5	25.6	7.4
350.0	4370.1	25.2	5.4
101.7	5227.5	22.7	-2.1
301.5	5553.2	22.3	-2.5
747.5	5526.3	18.5	-7.3
707.2	1351.6	16.0	-5.2
557.7	12074.5	2.5	-3.3
515.1	13333.1	4.3	-5.7
593.7	14825.1	1.7	-9.9
			45.0



327  
ASCLIMATIZATION NO.  
12 JULY 36, 0826 MDT  
STATION ALTIMETER 3256.0, EEE 151

MANUFACTORY LEVELS

UNITED STATES

TABLE 10

PRESSURE (INCHES OF MERCURY)	TEMPERATURE (DEGREES FAHRENHEIT)	REL.HUM. (%)	DATA
WILLIAMS FEET	AIR DEWPOINT DEGREES FAHRENHEIT	PERCENT	SPEED (M/S)
851.0	63.67.	25.2	5.4
901.0	55.51.	22.3	-2.8
750.0	84.28.	13.7	-7.5
771.0	123.51.	16.3	-5.2
651.0	123.62.	3.5	-7.7
601.0	145.27.	2.6	-9.3

STATION ALTITUDE 3297.0 FEET 15°  
12 JUNE 34 MDT 0826 MDT

SIGNIFICANT LEVELS  
14400 CLOUDS  
52°49'33" LAT DES  
136°42'07" LONG RES

TABLE 17

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE METERS	TEMPERATURE AIR DEPRES. DEGREES CENTIGRADE	TEMPERATURE REF. 44°	
			DEGREES	PERCENT
375.1	3977.3	29.2	5.2	25.0
370.2	4175.4	27.5	4.5	23.0
350.3	4872.3	25.2	3.2	24.0
320.1	5329.2	22.5	-2.2	22.0
759.6	1113.3	19.3	-5.8	13.0
700.2	10555.9	16.1	-5.1	26.0
550.2	12379.3	9.3	-7.3	51.0

STATION NO. 57  
ACCESSION NO. 54  
12 JUNE 54  
SALT LAKE CITY, UTAH  
LATITUDE 40° 46' 33"  
LONGITUDE 111° 56' 43"  
ELEVATION 4,900 FEET  
MSI

TABLE 18

GEOMETRIC ALTITUDE IN FEET	PRESSURE IN MILLIBARS	TEMPERATURE IN DEGREES CENTIGRADE	RELATIVE HUMIDITY IN PERCENT	SOUND SPEED IN FEET PER SECOND	DENSITY IN CUBIC FEET PER KILOGRAM	SPEED OF WIND IN FEET PER SECOND		DIRECTION DEGREES FROM NORTH	REFLECTION INDEX
						BEFORE REFLECTION	AFTER REFLECTION		
3297.3	375.1	23.2	5.9	26.3	1000.6	577.7	260.1	14.0	1.00245
4000.0	375.3	23.2	5.7	26.3	1000.6	577.7	240.0	16.0	1.00245
4500.0	351.0	25.5	4.0	23.5	997.5	575.5	13.5	1.00247	1.00247
5000.0	846.2	24.9	2.8	23.8	935.2	573.7	243.4	15.1	1.00248
5500.0	631.6	23.5	1.2	22.8	977.3	572.1	245.2	13.0	1.00248
6200.0	317.2	22.4	0.6	21.8	950.6	672.7	247.1	12.6	1.00249
6500.0	802.3	21.7	-1.5	20.3	266.4	552.9	242.1	12.4	1.00250
7200.0	788.9	20.9	-2.3	20.1	232.5	553.3	249.7	11.6	1.00250
7500.0	775.1	20.1	-4.1	19.2	318.3	557.8	235.8	12.3	1.00250
8200.0	761.5	19.3	-5.4	18.3	295.3	555.2	212.3	2.6	1.00223
8500.0	748.1	18.3	-5.8	18.3	192.6	565.7	210.2	12.2	1.00217
9200.0	734.3	17.3	-5.0	20.3	880.0	556.5	203.1	11.1	1.00214
9500.0	721.8	15.3	-5.3	21.3	967.7	553.2	192.9	11.8	1.00211
10200.0	703.0	14.9	-6.3	23.3	851.3	551.3	178.1	12.6	1.00203
10500.0	596.3	13.7	-5.2	24.5	943.2	550.5	175.0	13.4	1.00203
11200.0	683.8	12.3	-6.5	26.2	932.2	558.9	162.0	12.0	1.00203
11500.0	671.4	10.8	-7.0	28.0	822.3	557.2	151.1	11.9	1.00203
12200.0	552.3	9.4	-7.4	29.7	811.2	555.5	141.2	11.9	1.00203

STATION ALTITUDE 3397.56 FT. 0826 MDT  
ASCENDANCE 54.00 DEG. 12.11 SEC. 51.11

WINDSTORY LEVELS

105.62307 LAT DES  
32.63555 LAT DES  
105.62307 LAT DES

TABLE 19

PRESSURE SCHEDUEAL	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	DIRECTION DEGREES (N)	SPEED DEGREES (N)	SICKS
850.0	48.62.	25.2	3.2	26.	15.6
800.0	55.03.	21.5	-1.3	21.	24.5
750.0	84.23.	13.4	-5.9	19.	12.3
700.0	104.65.	14.1	-6.1	17.	11.1
650.0	124.05.	26.	26.	26.7	12.7

STATION ALTITUDE 3660.0 FEET 45L  
12 JUNE 34 0911 MDT  
ASCENSION NO. 323

SIGNIFICANT LEVEL DATA

1440020323  
WHITE SANDS  
MILLIMETERS 45L FEET

SEASCAPE COORDINATES  
32.4045 LAT DES  
106.37735 LONG DES

TABLE 20

PRESSURE MILLIBARS	SEALEVEL ALTITUDE FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
375.4	3939.0	29.9	7.2	26.0
470.7	4173.5	23.5	6.2	21.0
550.0	4977.6	25.4	.2	13.0
756.3	7335.5	17.9	-5.5	23.0
720.7	9545.2	15.5	-7.3	22.0
700.0	12354.4	16.0	-6.2	23.0
543.3	12555.9	7.3	-7.9	53.0
599.7	14555.2	3.0	-15.1	25.0

STATION ALTITUDE: 3,668 FEET MSL  
1: JUNE 94  
ASCENSION NO. 323

UPPER AIR DATA  
1640023124  
WHITE SANDS

EQUATORIAL COORDINATES  
52.63365 LAT DEG  
176.37035 LONG DEG

TABLE 21

GEOMETRIC ALTITUDE *SL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL-HUM. PERCENT	SOUND SPEED METER SEC	SPEED OF SIGHT KNOTS	DIRECTION DEGREES (TRUE)	INDEX OF REFRACTION
3322.0	3750.4	29.9	7.2	240.0	1000.0	573.7	1.022263
4000.0	375.1	29.6	7.3	235.3	1053.0	579.5	1.022265
4500.0	661.1	27.5	2.4	19.6	934.3	575.7	1.022267
5000.0	365.4	25.1	1.1	8.2	982.7	574.3	1.022269
5500.0	351.5	24.3	1.5	9.3	970.5	573.2	1.022271
6000.0	517.1	23.2	1.1	9.9	958.1	571.5	1.022273
6500.0	302.3	21.8	1.7	0.7	946.0	569.7	1.022274
7000.0	782.3	20.4	2.3	1.5	934.1	568.2	1.022276
7500.0	775.2	18.7	3.0	2.3	922.6	565.6	1.022277
8000.0	761.7	17.7	3.6	2.3	910.5	565.1	1.022278
8500.0	748.2	17.0	4.9	1.9	906.5	564.5	1.022279
9000.0	734.3	15.3	6.1	1.0	882.8	563.4	1.022281
9500.0	721.3	15.5	7.2	0.1	959.6	562.6	1.022282
10000.0	709.3	14.7	5.6	4.5	956.5	561.6	1.022283
10500.0	595.3	13.5	6.4	8.3	943.7	557.5	1.022284
11000.0	583.7	12.1	5.2	9.6	937.7	553.3	1.022285
11500.0	571.3	10.7	5.3	0.5	922.1	557.1	1.022286
12000.0	552.2	9.2	5.8	1.5	911.5	555.3	1.022287
12500.0	567.2	7.6	7.5	2.5	901.0	553.5	1.022288
13000.0	535.4	5.5	9.1	1.5	739.7	552.1	1.022289
13500.0	523.6	3.4	11.0	9.5	778.7	550.7	1.022290
14000.0	512.1	4.3	12.2	7.3	757.5	569.3	1.022291
14500.0	500.8	3.1	14.9	2.2	756.7	567.9	1.022292

STATION ALTITUDE 3960.00 FEET MSL  
12 JUNE 34 0911 MDT  
ASCENSION NO. 325

MANDATORY LEVELS  
144002Z120  
WHITE SANDS  
ASCENSION NO. 325

STATIC COORDINATES  
52.6003 LAT DES  
126.37033 LONG DES

TABLE 22

WILLIAMS FEET	PRESSURE SEASCAPE	TEMPERATURE DEGREES	AIR DEPOINT DEGREES	REL.HUM. PERCENT	REL.HUM. PERCENT		DIRECTION DEGREES(CW)	SPEED DEGREES(CW)	WIND DATA
					CENTIGRADE	DEGREES			
850.0	4.976.	25.6	21.5	72	13.	237.7	7.7		
850.0	5.529.	21.5	17.1	108	21.	225.0	3.1		
750.0	8.125.	17.1	14.7	48	22.	230.1	6.5		
720.0	10.344.	14.7	12.3	42	28.	216.9	15.3		
650.0	12.777.	12.3	10.9	74	32.	202.2	15.7		
400.0	14.520.	10.9	9.5	15.0	25.				

STATION ALTITUDE 3397.0 FT  
12 JUNE 36 0911 MDT  
ASCENSION C. S.

SIGNIFICANT LEVELS  
16430' 5950'  
S P P

TABLE 23

PRESSURE	GEOMETRIC ALTITUDE MILLIBARS	TEMPERATURE AIR DEPRESSION DEGREES CENTIGRADE	REL. HUM. PERCENT
3750.2	3927.3	35.2	20.0
3750.2	4174.9	35.0	20.3
3530.7	4932.0	27.2	17.0
7000.0	15371.6	12.9	17.0
5550.5	12125.4	9.1	22.0
5960.4	14723.0	1.7	22.0
		-17.2	23.0

SATELLITE COORDINATES  
52.4803° LAT  
126.6237° LONG  
S E S

STATION ALTITUDE 3397.7 FEET 45°  
12 JUNE 34 0911 MDT  
ASCENSION NO. 58

UPPER AIR DATA  
1540Z CEST  
45°

GEOMETRIC COORDINATES  
32°43'33" LAT  
106°42'27" LONG

TABLE 24

GEOMETRIC ALTITUDE FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	RELATIVE HUMIDITY PERCENT	DENSITY SM/CESTIC METER	SPEED METERS/SEC	DIRECTION DEGREES (T)	WIND SPEED KNOTS	INDEX OF REFRACTION	
3997.3	976.2	6.3	26.3	1772.5	572.3	260.3	3.0	1.000255	
4000.0	975.1	50.2	4.7	1772.6	679.3	240.3	3.0	1.000252	
4500.0	861.4	23.7	1.3	1773.0	577.3	242.2	3.0	1.000249	
5000.0	865.5	25.9	-1	1773.1	575.7	244.4	3.0	1.000244	
5500.0	851.6	25.6	-8	1773.2	676.2	265.5	3.0	1.000240	
6000.0	817.0	24.3	-1.5	1773.5	572.7	248.3	3.1	1.000235	
6500.0	802.7	23.0	-2.2	1773.7	942.0	571.2	257.3	3.1	1.000232
7000.0	793.7	21.7	-3.0	1773.9	929.7	559.7	248.3	2.5	1.000229
7500.0	774.8	22.4	-3.7	1774.1	917.5	553.0	242.5	5.4	1.000225
8000.0	751.2	19.1	-4.5	1774.5	905.5	556.7	232.0	5.5	1.000221
8500.0	747.9	17.8	-5.3	1774.9	993.7	555.2	217.0	5.9	1.000215
9000.0	734.8	15.5	-6.0	1775.3	962.1	553.7	211.3	7.0	1.000214
9500.0	721.9	15.2	-6.8	1775.6	970.5	552.1	205.3	3.4	1.000211
10000.0	709.3	13.9	-7.5	1775.9	852.1	550.5	227.5	12.1	1.000207
10500.0	695.7	12.6	-8.2	1776.2	847.3	557.2	223.4	12.0	1.000206
11000.0	684.1	11.5	-7.9	1776.9	835.5	557.3	229.2	13.9	1.000202
11500.0	571.8	10.5	-7.5	1777.1	823.5	555.7	228.3	16.4	1.000199
12000.0	552.5	9.4	-7.5	1777.4	811.7	555.5	226.3	16.4	1.000197
12500.0	547.5	3.1	-8.9	1777.7	555.7	227.7	15.4	1.000195	
13000.0	635.6	5.7	-10.5	1778.0	790.3	552.2	1.000193		
13500.0	523.8	5.3	-12.4	1778.4	779.5	552.5	1.000191		
14000.0	512.3	3.9	-14.2	1778.7	759.7	559.2	1.000189		
14500.0	601.3	2.5	-15.1	1779.7	547.2	1.000183			

STATION ALITUDE (ft.)	RELATIVE HUMIDITY (%)	TEMPERATURE (°F.)	DEGREES CENTIGRADE	FEET	DEGREES CENTIGRADE	TEMPERATURE (°F.)	DEGREES CENTIGRADE	FEET	DEGREES CENTIGRADE	TEMPERATURE (°F.)	DEGREES CENTIGRADE	FEET		
3200000 3333333 3444444 3555555 3666666 3777777 3888888 3999999 4000000 4111111 4222222 4333333 4444444	58 60 61 62 63 64 65 66 67 68 69 70 71	59 61 63 65 67 69 71 73 75 77 79 81 83	15.5 17.8 20.1 22.4 24.7 27.0 29.3 31.6 33.9 36.2 38.5 40.8 43.1	4974 4720 4466 4212 3958 3704 3450 3196 2942 2688 2434 2180 1926	49.0 47.0 45.0 43.0 41.0 39.0 37.0 35.0 33.0 31.0 29.0 27.0 25.0	59 61 63 65 67 69 71 73 75 77 79 81 83	59 61 63 65 67 69 71 73 75 77 79 81 83	15.5 17.8 20.1 22.4 24.7 27.0 29.3 31.6 33.9 36.2 38.5 40.8 43.1	4974 4720 4466 4212 3958 3704 3450 3196 2942 2688 2434 2180 1926	49.0 47.0 45.0 43.0 41.0 39.0 37.0 35.0 33.0 31.0 29.0 27.0 25.0	59 61 63 65 67 69 71 73 75 77 79 81 83	59 61 63 65 67 69 71 73 75 77 79 81 83	15.5 17.8 20.1 22.4 24.7 27.0 29.3 31.6 33.9 36.2 38.5 40.8 43.1	4974 4720 4466 4212 3958 3704 3450 3196 2942 2688 2434 2180 1926

TABLE 25

PRESSURE SURFACE STATION ELEVATION, TEMP. HUM.

DEGREES FAHRENHEIT, RELATIVE HUMIDITY (%)

STATION	DEGREES FAHRENHEIT	RELATIVE HUMIDITY (%)	DEGREES FAHRENHEIT	RELATIVE HUMIDITY (%)	DEGREES FAHRENHEIT	RELATIVE HUMIDITY (%)
135.43337	58	60	59	61	60	62
32.33333	60	62	61	63	62	64
3223333 3333333 3444444 3555555 3666666 3777777 3888888 3999999 4000000 4111111 4222222 4333333 4444444	61	63	62	64	63	65

44001084 LEVELS

ASCI STATION NO. 58 0911 MDT  
 12 JUNE 54, 1951  
 STATION ALITUDE 3333333, 3444444, 3555555, 3666666, 3777777, 3888888, 3999999, 4000000, 4111111, 4222222, 4333333, 4444444

44001084 LEVELS

STATION NO. 151  
ACROSS N. C. 174  
12 JUNE 1944  
1000 MDT

SIGNIFICANT LEVEL DATA

52.9144 LAT  
116.4223 LONG  
1000 MDT  
14 DEG  
52.9144 LAT  
116.4223 LONG  
1000 MDT

TABLE 26

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
375.5	3929.3	50.9	17.0
273.5	6035.2	50.6	26
250.0	6855.2	23.1	16
237.5	3917.2	15.3	5.7
217.7	2537.0	14.7	5.3
700.3	11378.4	13.5	7.9
532.7	13112.3	5.9	3.7
592.3	14957.2	2.3	1.0

STATION ALTITUDE 3600, °C, FEET 55  
12 JUNE 36 1000 MDT  
ASCENSION NO. 229

UPPER AIR DATA  
1440023320  
WHITE SANDS  
1000 MDT

SPHERICAL COORDINATES  
32°34'00" LAT DEG  
106.37033° LONG DEG

GEOMETRIC PRESSURE TEMPERATURE  
ALTITUDE ALT DEGREES  
MSL FEET MILIMETERS DEGREES CENTIGRADE

3949.0	3756.5	35.0	17.0	1001.0	580.4	130.7	7.9	1.000254
4000.0	3760.2	30.0	17.0	1000.8	580.6	130.1	7.9	1.000254
4500.0	661.3	29.2	20.1	17.5	332.5	578.5	331.9	1.000250
5000.0	345.5	27.8	18.3	18.1	977.1	575.9	335.3	1.000249
5500.0	331.9	25.3	16.4	18.3	254.2	575.1	336.1	1.000248
6000.0	317.4	24.3	14.7	18.6	252.2	573.4	339.7	1.000247
6500.0	303.2	23.6	12.7	18.3	911.1	571.7	241.7	7.9
7000.0	789.2	21.9	-2.7	19.0	929.4	570.0	445.0	5.5
7500.0	775.5	20.5	-5.7	19.3	917.7	559.3	448.0	5.1
8000.0	752.0	19.0	-4.7	19.5	926.5	555.5	351.5	5.7
8500.0	748.7	17.6	-5.8	19.8	825.6	556.3	347.5	6.7
9000.0	735.5	15.2	-5.7	20.2	894.1	553.3	311.1	5.2
9500.0	722.5	15.1	-5.7	21.5	871.5	552.1	265.0	5.9
10000.0	709.3	14.1	-7.3	22.0	859.1	552.3	242.5	5.5
10500.0	696.3	13.0	-7.3	22.4	846.3	552.5	236.2	10.1
11000.0	684.2	11.0	-7.3	24.3	834.9	552.9	230.2	12.9
11500.0	671.0	10.7	-8.3	26.1	823.1	555.2	227.0	13.6
12000.0	559.5	7.5	-3.1	27.7	311.5	555.5	226.0	16.7
12500.0	547.7	3.3	-8.4	29.7	900.1	554.2	220.2	15.9
13000.0	635.9	7.1	-3.5	31.5	734.2	552.8	216.3	11.7
13500.0	526.2	5.0	-12.5	29.3	777.8	551.4	1.000197	1.000197
14000.0	512.7	6.9	-13.2	25.7	756.7	550.0	1.000152	1.000152
14500.0	601.4	3.7	-15.0	22.0	755.3	543.5	1.000177	1.000177

TABLE 27

GEOMETRIC PRESSURE TEMPERATURE ALTITUDE ALT DEGREES MSL FEET MILIMETERS DEGREES CENTIGRADE	REL-HUM. PERCENT	SPEED OF WIND/CUBIC METER	DIRECTED KNOTS	DEGREES(ANTI- SYN)	INDEX OF REFRACTION
3949.0	3756.5	30.0	17.0	1001.0	580.4
4000.0	3760.2	30.0	17.0	1000.8	580.6
4500.0	661.3	29.2	20.1	17.5	332.5
5000.0	345.5	27.8	18.3	18.1	977.1
5500.0	331.9	25.3	16.4	18.3	254.2
6000.0	317.4	24.3	14.7	18.6	252.2
6500.0	303.2	23.6	12.7	18.3	911.1
7000.0	789.2	21.9	-2.7	19.0	929.4
7500.0	775.5	20.5	-5.7	19.3	917.7
8000.0	752.0	19.0	-4.7	19.5	926.5
8500.0	748.7	17.6	-5.8	19.8	825.6
9000.0	735.5	15.2	-5.7	20.2	894.1
9500.0	722.5	15.1	-5.7	21.5	871.5
10000.0	709.3	14.1	-7.3	22.0	859.1
10500.0	696.3	13.0	-7.3	22.4	846.3
11000.0	684.2	11.0	-7.3	24.3	834.9
11500.0	671.0	10.7	-8.3	26.1	823.1
12000.0	559.5	7.5	-3.1	27.7	311.5
12500.0	547.7	3.3	-8.4	29.7	900.1
13000.0	635.9	7.1	-3.5	31.5	734.2
13500.0	526.2	5.0	-12.5	29.3	777.8
14000.0	512.7	6.9	-13.2	25.7	756.7
14500.0	601.4	3.7	-15.0	22.0	755.3

1000 MSL  
3500  
ACCESSION NO.  
12 JUNE 95  
SERIAL NO. 1000 MSL

106.177.55.141  
20.236.5.141  
SERVICELINE

TABLE 28

31

STATION ALTITUDE 3297 FEET MSL  
12 JUNE 94 1002 MDT  
ASCENSION C. 59

SIGNIFICANT LEVEL DATA  
144000 COORDINATES  
S A R  
52.63034 LAT RES  
135.62337 LONG RES  
TABLE 29

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE WSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEPTHT DEGREES	REL. HUM. PERCENT
375.2	3997.3	31.5	5.7	22.2
259.3	4212.4	32.1	3.2	15.3
350.0	4833.1	27.3	9	15.3
219.3	5944.3	24.5	5	19.3
712.3	7335.4	12.9	-7.2	26.3
720.0	12353.2	12.9	-7.2	26.3
520.3	13650.5	6.3	-12.1	28.3

1515 4554 3397 1002 LGR  
SAYLOR ALBERT 12 JUNE 94  
ACADESIS Ch 6

69CC4CC4  
Update 112014

TABLE 30

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99999999  
1960000000  
MANUFACTURED IN U.S.A.

TABLE 31

PRESSURE IN MILLIBARS	SECOPOTENTIAL IN FEET	TEMPERATURE IN DEGREES CENTIGRADE	AIR DEWPOINT IN DEGREES CENTIGRADE	REL.HUM. PERCENT	DIRECTION DEGREES (IN) KNOTS	WIND SPEED KNOTS
852.0	4970.	27.3	27.3	100	130	250.4
852.0	5521.	22.5	22.5	100	230	273.4
751.0	8447.	17.2	17.2	100	220	255.4
751.0	13154.	12.3	12.3	100	210	227.3
651.0	12777.	7.3	7.3	100	250	200.5

34